Why Healthy People Get Cancer:
Centre Examines Environmental Suspects
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"Most cases of breast cancer are not born, but made", writes epidemiologist Dr. Devra Davis. Davis is the director of a cancer centre with a difference, a centre for environmental oncology, part of the University of Pittsburgh Cancer Institute.

Studies show that half of all breast cancers occur in women who have no known risk factors. Less than one case of breast cancer in ten occurs in women with a genetic predisposition to breast cancer. For years, breast cancer research focused on 'the search for a cure', with little emphasis on finding the causes for the dramatically rising rates. Then, the emphasis turned to lifestyle factors. In the late 90s, over half a million US women demanded that federal researchers look farther for the causes of breast cancer. Recently, the search for an explanation for the continuing dramatic rise in rates of breast cancer is turning more to environmental contaminants.

"There are about 10 million cancer survivors in the United States today, each of whom is concerned with both their own survival and with preventing disease from occurring in their family members," said Dr. Davis. "Unfortunately, however, aside from smoking, drinking, other bad habits, and some workplace exposures, most cases of cancer occur in people who have led otherwise healthy lives. Patterns of the disease remain largely unexplained. According to Dr. Davis, research at the Center seeks to address a key question: What causes the majority of people who are born with a healthy array of genes – some 95 percent of women with breast cancer, for example – to develop defects during their lifetime that lead to cancer?

Led by Davis, the Center for Environmental Oncology (CEO will examine factors in the physical and chemical environment that have been linked to cancer. They will examine toxic chemicals, indoor and outdoor air pollutants, chlorination byproducts in domestic water, ingredients in personal care products, and organochlorine residues in animal and fish fat. They will also look at the impact of personal habits, both good and bad, such as nutrition, exercise, alcohol consumption and smoking.

One of the immediate research priorities of the new centre is the puzzling phenomenon of breast cancer in African-Americans under the age of 40, who have nearly twice as much breast cancer as do white women. The reasons for this disparity are unclear. The centre will work with Silent Spring Institute, a Massachusetts based cancer institute, to identify suspect contaminants and ingredients in hair care products and other personal products regularly used by African-American young women and their mothers.

As early at 1993, Davis and co-researcher Leon Bradlow advanced the theory that xenoestrogens, synthetic estrogen imitators, were a possible cause of breast cancer. More recently, attention has turned to estrogenic compounds in hair care products used by black women as a possible explanation for higher cancer rates in this population.

“Most of our national efforts against cancer have focused on detecting and treating disease after it has occurred,” said Ronald B. Herberman, M.D., director of UPCI and the UPMC Cancer Centers. “While this type of research is imperative, we simultaneously need to greatly improve our research efforts to develop effective interventions to address the known and suspected causes of cancer that may help us in our efforts at prevention.

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